NOTES ON THE DIPTERA OF LAGUNA BEACH

F. R. COLE

There were many flies obtained from the vegetation back from the beach and from the great swarms of them about the kelp which was strewn along the shore. The sand is also a good collecting place for some species, and some are found in wet places and even in the spray of the waves as they dash over the rocks. There were countless thousands of the large and small Fucellia. The larger species is often on the wet rocks, flying upwards as the waves come rolling in, and settling back as the water subsides again.

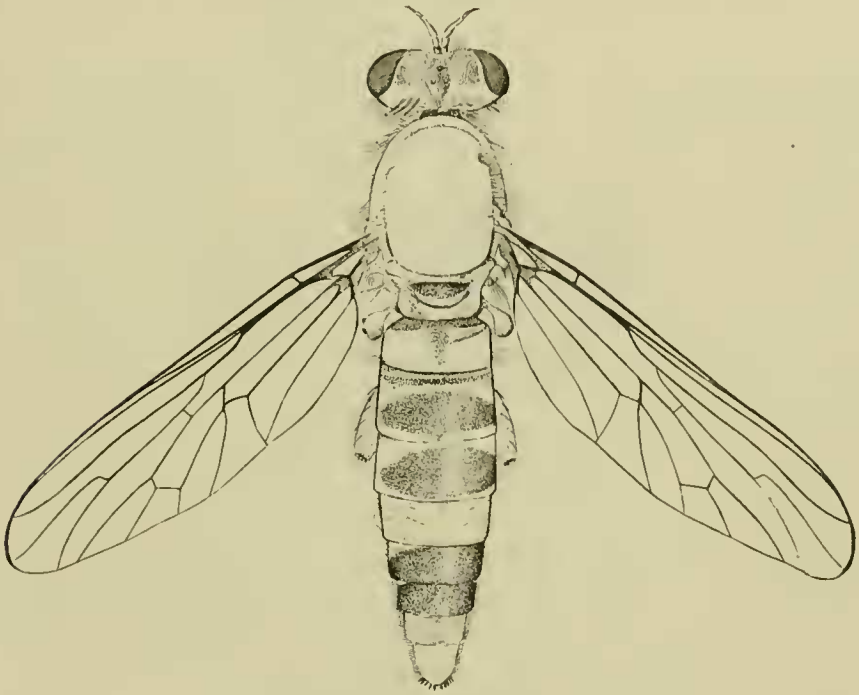

Figure 264. Neopogon sp.

In the last report of the Laguna Marine Laboratory only a surface study was made of the Diptera and only a part of the collection was reported on. Since that time a number of forms have been added to the list of Diptera from Laguna. There were two mistakes in the last report. According to Aldrich, Prof. Hine made a mistake in determining the asilid sent him as *Stichopogon trifasciatus* Say. (Figure 264).

This fly according to his classification is of the genus *Neopogon* and an undescribed species. Back, in his monograph, attributed *trifasciatus* to Southern California; Williston did the same. This new species has upward directed white pile around the margin of the scutellum. Bezzi has published

a paper on the Dasypogoninæ since the work of Back, and has made several new genera. All of the American species are put in the new genus Neopogon. (His paper is in the Annales of the Hungarian National Museum). Aldrich believes that both Back and Williston were wrong in identifying *trifasciatus* from Southern California.

The other mistake was due to Aldrich. The small fly determined by him as *Allotrichoma* n. sp. (Figure 265) and published in the Laguna Report as *Allotrichoma littoralis* is *Atissa pygmaea* Haliday. Aldrich somehow traced it wrong in Becker's and kindly rectified the mistake. The specimen was determined by Becker, who is the author of the current monograph of the European species. This is an European species described many years ago.

Figure 265. Atissa pygmæa Hal.

Lipochaeta slossomae, which was figured in the Laguna Report, was discovered first on the Florida Coast, then on the west side of the Gulf of Mexico, then on the California coast. It is, according to Aldrich, a southern species, and is found in large numbers at some of the Southern California beaches. It was quite rare at Laguna. It differs greatly from most ephyrids. Williston thought it an aseinid at first.

There was another slight mistake in the last Laguna Report. The *Scatopse* was named *californiana* in the figure and *californica* in the text. It should be *californica.*

There are a number of flies that were collected and not reported on last year. The collection has not been fully classified as yet, but considerable additions can be made to last year's list, thanks to the determinations made by Aldrich.

STRATIOMYIDAE

Euparyphus apicalis Coq.

New to Aldrich. Described by Coquillet from Siskiyou County, Cal.

SCENOPINIDAE

Scenopinus fenestralis Linne

Two specimens were collected at Laguna.

EMPIDIDAE

Paracthallasius aldrichi Melander

Parathallasius sp.

This is an undetermined specimen and is larger than *aldrichi*, but resembles it much.

DOLICHOPODIDAE

Hercostomus occidentalis n. sp.

This gray dolichopodid has a laterally compressed conical abdomen. The eyes are red and the thorax iridescent with metallic greens and blues. The occiput is concave and the head slightly wider than the thorax. The antennæ are short and thick with a long bare dorsal arista. At the end of the second joint is a circlet of short spines. The third joint is rounded on the end. The head is flat and the eyes quite large and not contiguous. The antennæ are yellowish in color. The front is gray and pilose, and the legs light yellow, thickly covered with short spines.

The spines are most all reclinate. There is one large supra-alar bristle, two pairs of long intra-alar, and two large bristles on the back end of the scutellum. There are two large ocellar bristles, one large bristle over the eye, two pair of notapleural, and a long bristle just under the propleura. There are three heavy spines on the front of the fore femora, one large bristle on the humeral callosity, two on the middle femora, and one on the back of the hind femora. There are two small ocellar bristles and the achrostichal and dorsocentral bristles are small. The wings are hyaline. Length 3.25 mm., wing the same.

There was only one specimen collected at Laguna.

Dolichopus bakeri

This species was determined by Aldrich from a female. The thorax is a beautiful bronze and green color. The hind tarsi are yellow at the base. The third joint of the antennæ is large and round. (See Figure 266). The antennæ are black with gray pile on the third joint. The front is purple. The arista is dorsal, long, slender, and bare. The sides of the abdomen are a red bronze color and the rest of the body a metallic green. The face is white pilose, the eyes quite large with a black center and a reddish margin. (See Figure 266). The spines are heavy and black and reclinate. The spines on the tarsi are long and quite heavy. There are two long ocellar and two very long supra orbital bristles. The empodia are small and white. The head is slightly wider than the thorax. Wings hyaline. Length of fly 4.50. Length of wing 4 mm.

Dolichopus afflictus o. s.

Quite a number of these were collected.

SYRPHIDAE

Paragus tibialus

Quite common at Laguna.

Of the family Borboridæ there were several species collected, all of the genus Limosina. These species were undetermined, Melander having most of the material on the family. They were found with the ephydrids in large numbers.

AGROMYZIDAE

Leucopis bella

A small gray fly. The larvæ are cylindrical, thicker posteriorly and creep like geometrids.

Leucopis nigricornis

Agromyza puella Mg.

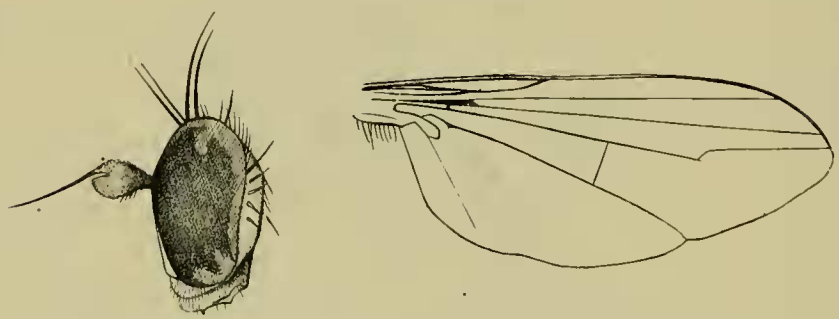

Figure 266. Head and Wing of Dolichopus bakeri

OSCINIDAE

Chlorops assimilis common

Another species of *Chlorops* was quite common. Aldrich only worked it out to the genus. It is a reddish yellow fly with eyes and top of abdomen black. They were found with a species of *Meromyza*, a small slender yellow fly with gray markings and dark spots on the abdomen.

ANTHOMYIDAE

There were four genera of this family collected. Anthomyia, Pegomyia, Cœnosia and Hydrotæa. All of these flies were found along the beach about the piles of kelp and sea weeds.

SARCOPHAGIDAE

Two species of Sarcophaga were found in the decaying kelp. They probably breed in the rotting piles of sea weed and moss thrown upon the beach.